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EXAMINER

HINZE, LEO T

ART UNIT	PAPER NUMBER
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2854

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12/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,677	Applicant(s) BOOSE ET AL.	
	Examiner LEO T. HINZE	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-33 and 35-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-33 and 35-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 November 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed 30 November 2009 have been fully considered but they are not persuasive.

a. Applicant's arguments are manifold and span sixteen pages. The examiner will do his best to respond to all of the presented arguments.

b. Applicant argues on pp. 12-14 that Weeks is nonanalogous art to the claimed invention, and can therefore not anticipate the claimed invention. The examiner disagrees. Even assuming, *arguendo*, that Applicant's allegation that "neither of these inventions could conceivably attain the objectives of the other," patentability of an invention is based on the claims, and not on the "objective" of the invention. As set forth below, Weeks either anticipates, or renders obvious in combination with other references, the claimed invention.

c. Applicant argues on pp. 14-15 that the claimed structure of the opening, being narrower at the front and wider at the back, is not arrived at in Weeks until after crimping. This appears to be correct. Applicant argues that this is different from the claimed invention. The examiner disagrees. The claimed invention does not appear to recite any limitations that would be dispositive of Weeks anticipating or rendering obvious the claimed invention with regards to the method with which Weeks arrives at the claimed structure.

d. Applicant argues on p. 15 that Weeks is directed to a system that requires removal of the entire doctor blade system, while the present invention allows replacement of only the doctor blade. The examiner disagrees. The doctor blades in Weeks appear to be replaceable without removal of the entire doctor blade system. Additionally, these features asserted by the Applicant do not appear to be specifically claimed.

e. Applicant argues on pp. 15-16 that Weeks is nonanalogous art because Weeks is directed to gravure printing. The examiner agrees that Weeks appears to be directed to gravure printing. However, both Weeks and the claimed invention appear directed to the same problem – doctoring ink on a printing roller. Therefore, the examiner is not persuaded by Applicant's arguments that Weeks is nonanalogous art.

f. Applicant argues on p. 16 that Weeks fails to teach several method steps of the instant invention. However, several of these alleged method steps do not appear to be positively claimed in the present application.

g. Applicant argues on pp. 16-17 that, unlike in the claimed invention, it is impossible to remove the doctor blade and rubber damper of Weeks after installation. The examiner disagrees. Both Weeks and the claimed invention have a slot for holding the doctor blade that is wider at the back than at the front. This geometry, along with the use of a resilient strip, appears designed to tightly hold the doctor blade in place, while still allowing removal. In both Weeks and the claimed invention, it is presumed that the doctor blade installation is “permanent” in such a manner as to allow the doctor blade to be firmly secured, and to remain secured despite vibrations and other forces that may be imparted by the press that would otherwise cause the doctor blade to become disengaged from the holder. Applicant appears to be merely arguing that the geometry of the claimed invention results in an apparatus that requires less force to remove the doctor blade and damper than Weeks. However, as there are not claim limitations directed toward the quantity of force required to remove the doctor blade and damper, based solely on the claimed geometry of the doctor blade, holder, and damper, it appears that Weeks anticipates and/or renders obvious the claimed invention, as discussed below.

h. Applicant argues on pp. 17-20 that the combination of Bööse and Weeks is improper, because Bööse and Weeks are nonanalogous art, and there would be no motivation to modify Bööse. Regarding motivation, Applicant appears to agree that one having ordinary skill in the art would be motivated to modify Bööse to improve its functionality, arguing on p. 19 that Bööse “has far too many parts, unnecessary inked surfaces and nooks with capillary slots which are difficult to access to achieve simple

and efficient cleaning of the printing unit.” This would appear to be sufficient motivation for one having ordinary skill in the art to modify Bööse with Weeks to arrive at the combination discussed below.

Regarding whether Bööse and Weeks are analogous arts, it appears that both are directed toward the same problem: that of using a doctor blade to wipe excess ink from a printing roller.

i. Applicant argues on p. 20 that lubrication would have no effect on the device of Weeks. The examiner disagrees. Because the blade and damper of Weeks are both so long, and fit tightly within the slot in the blade holder, lubrication would surely assist in reducing friction when installing the blade and damper in the slot.

j. Applicant argues on pp. 17-20 that the combination of Weeks and Bööse is improper, because Weeks and Bööse are nonanalogous art, and there would be no motivation to modify Weeks. The examiner disagrees. See above for the examiner’s rebuttal as to why Weeks and Bööse are analogous art. The motivation for one having ordinary skill in the art to combine Weeks and Bööse is set forth in the rejection of the claims below.

k. Applicant argues on pp. 21-24 that additional combination of references set forth by the examiner to show a *prima facie* case of obviousness are invalid because the additional references, Van Denend and Perez, fail to cure the deficiencies that Applicant alleges with respect to Weeks. The examiner is not persuaded by these arguments, as the examiner has set forth above why Weeks does not have the deficiencies argued by the Applicant.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 29-33, 35-49, 51, 55, 56, and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Weeks, US 5,152,221 A (hereafter Weeks).

a. Regarding claim 29, Weeks teaches a doctor blade mounting system for applying liquids to a rotatable cylinder in printing equipment comprising: an elongated frame mounted adjacent to said rotatable cylinder (18, 29, Fig. 1),

said elongated frame including a support and a clamping portion mounted with respect to said support (19, Fig. 1),

said clamping portion including an elongated slit having a first side and a second side defining an opening (slit 20, Fig. 1),

a doctor blade disposed within said elongated slit parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder, said doctor blade including a first side and a second side corresponding to said first and second sides of said elongated slit, respectively (17, Fig. 1), and

clamping means for fixing said doctor blade within said elongated slit (31, Fig. 2),

said second side of said elongated slit presenting a substantially planar surface for said second side of said doctor blade, whereby said doctor blade can be held along said substantially planar surface of said second side of said elongated slit with a substantially even clamping force (see arrangement of blade 17 and clamping means 31 in slit 20, Fig. 2), and

said first side of said elongated slit presenting a contoured surface including an outer end having a first predetermined dimension corresponding to the entrance into said elongated slit and an inner portion having a second predetermined dimension, said second predetermined dimension being greater than said first predetermined dimension ("The deformation of the material occurs to a greater extent toward the outer extremities of the respective walls. This causes the slotted recesses 20, 25, to be permanently deformed into a somewhat trapezoidal configuration," col. 5, lines 59-63),

said clamping means comprising an elastomeric material disposed within said elongated slit and accessible for removal from said opening in said slit with said doctor blade disposed therein whereby said elastomeric material can fit and lock within the cross-sectional profile of said elongated slit and said elastomeric material is resiliently disposed with respect to said first side of said doctor blade to provide a damping action for said doctor blade (material 31 appears locked in slit 20, Fig. 2; "a suitable material for the resilient strips is a 60 durometer rubber," col. 5, ll. 25-27), and

is removable from said opening to assist in subsequent removal of said doctor blade from said elongated slit (it appears that clamping member 31 is removable from slit 20, Fig. 1).

b. Regarding claim 40, Weeks teaches a doctor blade mounting system comprising a doctor blade clamping portion comprising: a solid material (19, Fig. 1) and including a slit including a first side and a second side defining an opening for receiving a doctor blade (20, Fig. 1),

said doctor blade including a first side and a second side corresponding to said first and second sides of said slit, respectively (17, Fig. 1), and

clamping means for clamping said doctor blade within said slit (31, Fig. 1),

said second side of said slit presenting a substantially planar surface for said second side of said doctor blade, whereby said doctor blade can be held along said substantially planar surface of said second side of said slit with a substantially even clamping force (see arrangement of blade 17 in slot 20, Fig. 1), and

said first side of said slit presenting a contoured surface including an outer end having a first predetermined dimension corresponding to the entrance into said slit and an inner portion having a second predetermined dimension, said second predetermined dimension being greater than said first predetermined dimension ("The deformation of the material occurs to a greater extent toward the outer extremities of the respective walls. This causes the slotted recesses 20, 25, to be permanently deformed into a somewhat trapezoidal configuration," col. 5, lines 59-63),

said clamping means comprising an elastomeric material disposed within said elongated slit and accessible for removal from said opening in said slit with said doctor blade therein whereby said elastomeric material can fit and lock within the cross-sectional profile of said slit and said elastomeric material is resiliently arranged to

provide a damping motion for said first side of said doctor blade (material 31 appears locked in slit 20, Fig. 2; “a suitable material for the resilient strips is a 60 durometer rubber,” col. 5, ll. 25-27), and

is removable from said opening to assist in subsequent removal of said doctor blade from said elongated slit (it appears that clamping member 31 is removable from slit 20, Fig. 1).

c. Regarding claims 30 and 41, Weeks teaches the doctor blade mounting system of claims 29 and 40, as discussed in the rejection of claims 29 and 40 above. Weeks also teaches wherein said clamping means is tightly received within said elongated slit (it appears that 31 is tightly received in slit 20, Fig. 2).

d. Regarding claims 31 and 42, Weeks teaches the doctor blade mounting system of claims 29 and 40, as discussed in the rejection of claims 29 and 40 above. Weeks also teaches wherein said clamping means fixes said doctor blade by means of friction (it appears that blade 17 and clamping means 31 create friction when inserted into slit 20, Fig. 2).

e. Regarding claims 32 and 43, Weeks teaches the doctor blade mounting system of claims 29 and 40, as discussed in the rejection of claims 29 and 40 above. Weeks also teaches wherein said clamping means supports at least said first side of said doctor blade disposed within said elongated slit (31 supports one side of 17, Fig. 2).

f. Regarding claims 33 and 44, Weeks teaches the doctor blade mounting system of claims 29 and 40, as discussed in the rejection of claims 29 and 40 above. Weeks

also teaches wherein said clamping means is resiliently disposed within said elongated slit (31 is a resilient rubber, col. 5, ll. 25-27).

g. Regarding claims 35 and 46, Weeks teaches the doctor blade mounting system of claims 29 and 40, as discussed in the rejection of claims 29 and 40 above. Weeks also teaches wherein said clamping means comprises at least one elastomeric member (“a suitable material for the resilient strips is a 60 durometer rubber,” col. 5, ll. 25-27).

h. Regarding claims 36 and 47, Weeks teaches the doctor blade mounting system of claims 35 and 46, as discussed in the rejection of claims 35 and 46 above. Weeks also teaches wherein at least a portion of said elastomeric member is in the shape of a wedge strip comprising a shape intended to cooperate with said contoured surface of said first side said elongated slit (member 31 appears to fit and lock in slit 20, and to cooperate with said contoured surface of said first side, Fig. 2).

i. Regarding claims 37 and 48, Weeks teaches the doctor blade mounting system of claims 35 and 46, as discussed in the rejection of claims 35 and 46 above. Weeks also teaches wherein at least a portion of said clamping means supports an edge of said doctor blade disposed within said elongated slit (it appears that an edge of blade 17 is supported by 31, Fig. 2).

j. Regarding claims 38 and 49, Weeks teaches the doctor blade mounting system of claims 35 and 46, as discussed in the rejection of claims 35 and 46 above. Weeks also teaches wherein said elastomeric member has a hardness of about 70 degrees Shore (“a suitable material for the resilient strips is a 60 durometer rubber,” col. 5, ll. 25-27; 60 appears to be “about” 70).

k. Regarding claim 39, Weeks teaches the doctor blade mounting system of claim 29, as discussed in the rejection of claim 29 above. Weeks also teaches wherein said support and said clamping portion comprise separate parts (19 and 31 are separate parts, Fig. 2), and said support includes at least one end portion, and wherein said clamping means resiliently clamps said clamping portion to said end portion of said support (see arrangement of 19 and 31, Fig. 2).

l. Regarding claim 45, Weeks teaches the doctor blade mounting system of claim 40, as discussed in the rejection of claim 40 above. Weeks also teaches wherein said clamping means is removably disposed within said slit (31 is removable from slit 20, Fig. 2).

m. Regarding claim 51, Weeks teaches a method for removably clamping a doctor blade in a clamping member comprising:

an elongated clamping member comprising solid material (19, Fig. 2),

said elongated clamping member including a first side and a second side defining a slit including an opening for introduction of said doctor blade including a first side and a second side corresponding to said first and second sides of said slit, respectively (20, Fig. 2),

said method comprising inserting a portion of said doctor blade into said slit through said opening with said second side of said slit presenting a substantially planar surface for said second side of said doctor blade (17, Fig. 2),

whereby said doctor blade can be held along said substantially planar surface of said second side of said slit with a substantially even clamping force (blade 17 is clamped along side of opening 20, Fig. 2), and

said first side of said elongated slit presenting a contoured surface including an outer end having a first predetermined dimension corresponding to the entrance into said elongated slit and an inner portion having a second predetermined dimension, said second predetermined dimension being greater than said first predetermined dimension ("The deformation of the material occurs to a greater extent toward the outer extremities of the respective walls. This causes the slotted recesses 20, 25, to be permanently deformed into a somewhat trapezoidal configuration," col. 5, lines 59-63),

thereafter inserting resilient clamping means into said slit through said opening for resiliently supporting said first side of said doctor blade within said slit (31, Fig. 2),

said resilient clamping means including a surface cooperating with said contoured surface so as to fit and lock said resilient clamping means within said elongated slit (material 31 appears locked in slit 20, Fig. 2);.

n. Regarding claim 55, Weeks teaches a method for removably attaching a doctor blade clamping portion (19, Fig. 1) to a support having at least one end portion (18, Fig. 1), said doctor blade clamping portion including a first slit including a first opening (20, Fig. 1) and a second slit including a second opening (25, Fig. 1), said first slit having a first side and a second side and intended to accommodate said doctor blade (17, Fig. 1), and said second slit having a first side and a second side, said second side of said first slit presenting a substantially planar surface for one side of said doctor blade,

whereby said doctor blade can be held along said substantially planar surface of said second side of said first slit (see arrangement of doctor blade in 19, Figs. 1, 2), said method comprising introducing said at least one end portion of said support (18, Fig. 1) into said second opening of said second slit and inserting resilient clamping means into said second opening of said second slit for resiliently supporting said at least one end portion of said support within said clamping portion (32, Figs. 1, 2).

o. Regarding claim 56, Weeks teaches the method of claim 55, as discussed in the rejection of claim 55 above. Weeks also teaches wherein said second side of said second slit presents a substantially planar surface for one side of said support, whereby said support can be held along said substantially planar surface of said second side of said second slit (see arrangements of 18 in slit 25, Figs. 1 and 2).

p. Regarding claim 58, Weeks teaches the doctor blade mounting system of claim 29, as discussed in the rejection of claim 29 above. Weeks also teaches wherein said doctor blade has a thickness of between about .06 mm and 2 mm ("the working blade section 17 may have a thickness of approximately .008 inch," col. 4, ll. 25-27), and wherein said elastomeric material comprises a material softer than said doctor blade ("a suitable material for the resilient strips is a 60 durometer rubber," col. 5, ll. 25-27).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

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at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bööse et al., US 5,671,673 A (hereinafter Bööse) in view of Weeks.

Bööse teaches a chambered doctor blade mounting system (Fig. 1) for applying liquids to a rotatable cylinder (2, Fig. 1) in printing equipment comprising an elongated frame (13, Fig. 1) mounted adjacent to said rotatable cylinder,

said elongated frame comprising a support and a pair of clamping portions (19, 20, Fig. 1),

a pair of elongated doctor blades (9, 10, Fig. 1) mounted on said pair of clamping portions whereby said pair of elongated doctor blades are disposed parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder (blades 9, 10, parallel to roller 2, Fig. 1),

each of said pair of clamping portions including an elongated slit for receiving each of said pair of elongated doctor blades (blades held in a “slit” between two pieces of metal, Fig. 1),

said pair of clamping portions and said support comprising separate parts (clamping portions appear to include two metal strips and several fasteners, Fig. 1),

said support including a pair of end portions, and clamping means resiliently clamping said clamping portion to said pair of end portions of said support (it appears that the clamping portions are resiliently clamped, Fig. 1). The examiner is interpreting “resilient” to mean “characterized or marked by resilience: as capable of withstanding shock without permanent deformation or rupture” (Merriam-Webster online dictionary at m-w.com). It appears the metallic clamping apparatus of Bööse is capable of withstanding shock without permanent deformation or rupture: for example, it is well-known that metals can be bent without causing permanent deformation or rupture.

Bööse does not teach said slit including an opening; said clamping means comprising an elastomeric material disposed within said elongated slit and accessible from said opening in said slit whereby said elastomeric material is resiliently disposed with respect to said doctor blade to provide a damping action for said doctor blade, and is accessible from said opening to assist in removing said doctor blade from said elongated slit.

Weeks teaches a doctor blade mounting system for applying liquids to a rotatable cylinder in printing equipment comprising:

an elongated frame mounted adjacent to said rotatable cylinder (18, 29, Fig. 1),

said elongated frame including a support and a clamping portion mounted with respect to said support (19, Fig. 1),

said clamping portion including an elongated slit having a first side and a second side defining an opening (slit 20, Fig. 1),

a doctor blade disposed within said elongated slit parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder, said doctor blade including a first side and a second side corresponding to said first and second sides of said elongated slit, respectively (17, Fig. 1),

and clamping means for fixing said doctor blade within said elongated slit (31, Fig. 2),

said second side of said elongated slit presenting a substantially planar surface for said second side of said doctor blade, whereby said doctor blade can be held along said substantially planar surface of said second side of said elongated slit with a substantially even clamping force (see arrangement of blade 17 and clamping means 31 in slit 20, Fig. 2), and

said first side of said elongated slit presenting a contoured surface including an outer end having a first predetermined dimension corresponding to the entrance into said elongated slit and an inner portion having a second predetermined dimension, said second predetermined dimension being greater than said first predetermined dimension ("The deformation of the material occurs to a greater extent toward the outer extremities of the respective walls. This causes the slotted recesses 20, 25, to be permanently deformed into a somewhat trapezoidal configuration," col. 5, lines 59-63),

clamping means comprising an elastomeric material disposed within said elongated slit and accessible for removal from said opening in said slit with said doctor blade disposed therein whereby said elastomeric material is resiliently disposed with respect to said first side of said doctor blade to provide a damping action for said doctor blade ("a suitable material for the resilient strips is a 60 durometer rubber," col. 5, ll. 25-27), and

is removable from said opening to assist in subsequent removal of said doctor blade from said elongated slit (it appears that clamping member 31 is removable from slit 20, Fig. 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse to include the blade mounting system of Weeks, because one having ordinary skill in the art could easily combine these known prior art elements, and such a combination would predictably provide a doctor-blade clamping mechanism that is mechanically simple yet effectively and firmly clamps a doctor blade.

8. Claims 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weeks.

a. Regarding claim 52:

Weeks teaches the doctor blade mounting method of claim 51 as discussed in the rejection of claim 51 above. Weeks also teaches that the clamping means generates friction against the doctor blade.

Weeks does not teach lubricating said clamping means prior to inserting said clamping means into said slit.

One having ordinary skill in the art would know that application of lubricant would help reduce friction.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Weeks by lubricating said clamping means prior to inserting said clamping means into said slit, because one having ordinary skill in the art would realize this would predictably reduce the friction and thereby the effort required to insert the clamping means into the slit.

b. Regarding claim 53, Weeks teaches the doctor blade mounting method of claim 52 as discussed in the rejection of claim 52 above. Weeks also teaches wherein said clamping means comprising an elastomeric member ("a suitable material for the resilient strips is a 60 durometer rubber," col. 5, ll. 25-27), and including manually inserting said clamping means into said slit (31 is inserted into 20, Fig. 2).

9. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weeks in view of Bööse.

Weeks teaches the doctor blade mounting method of claim 52 as discussed in the rejection of claim 52 above.

Weeks does not teach attaching said clamping means to a substantially U-shaped support.

Bööse teaches a chambered doctor blade with a U-shaped support (16, Fig. 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Weeks to include a U-shaped support in place of support 18, because Bööse teaches that it is well-known to use doctor blades on U-shaped supports, and such a combination would predictably allow the blade system of Weeks to be used in a chambered doctor blade system.

10. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weeks in view of Van Denend, US 5,524,540 (hereinafter Van Denend).

Weeks teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above.

Weeks does not teach wherein said elastomeric material comprises a first elastomeric material, and including a second elastomeric material disposed within said elongated slit on said second side of said doctor blade thereby providing said substantially planar surface.

Van Denend teaches applying an elastomeric member (108, Fig. 4) to a doctor blade (102, Fig. 4).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Weeks by attaching an elastomeric strip to the doctor blade as taught by Van Denend, because one having ordinary skill in the art would recognize that this could predictably provide additionally damping of said doctor blade by providing a resilient surface between the doctor blade and the wall of the slot in the clamping member.

11. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weeks in view of Perez, US 6,431,066 B1 (hereinafter Perez).

Weeks teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above.

Weeks does not teach wherein only up to about 30% of the entire length of said doctor blade is disposed within said elongated slit.

Perez teaches a doctor blade (5, Fig. 1) inserted into a slit in a clamping member (9, Fig. 1), where the majority of the doctor blade is outside of the slit.

It has been held that routine experimentation to optimize a value is not sufficient to patentably distinguish an invention over the prior art. See MPEP § 2144.05(II).

It is within the skill of one having ordinary skill in the art to optimize the design of a doctor blade clamping system to determine the optimum parameters.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Weeks wherein only up to about 30% of the entire length of said doctor blade is disposed within said elongated slit, because one having ordinary skill in the art could arrive at this value through routine experimentation, which would be motivated by determining the blade extension percentage between that taught by Weeks and that taught by Perez, to arrive at the optimal blade extension percentage.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo T. Hinze
Patent Examiner
AU 2854
17 December 2009

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854